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LETTER TO THE EDITOR

Closing-Wedge and Opening-Wedge High Tibial Osteotomy as Successful Treatments of Symptomatic Medial Osteoarthritis of the Knee: A Randomized Controlled Trial- Letter to Editor

Dear Editor

We read with great interest the article "Closing-Wedge and Opening-Wedge High Tibial Osteotomy as Successful Treatments of Symptomatic Medial Osteoarthritis of the Knee: A Randomized Controlled Trial" by Mohammadreza Safdari et al.[1] We appreciate the authors' efforts to describe the efficacy of high tibial osteotomy as a treatment for medial osteoarthritis of the knee. However, we had several concerns about the study results and believe that the authors' responses may help to address them.

1. The article mentioned that patients undergoing a closing wedge procedure were provided with a knee brace, but there was no mention of whether the knee brace was used continuously after surgery or how long it was continued before it was withdrawn.

2. In the study design section, the exclusion criteria included any pathology in the meniscus and ligaments. And the baseline characteristics of the patients also mentioned the stability of the knee joints. We noticed that the change in posterior tibial slope was included in the postoperative follow-up data, and I wonder if this item is because of the relationship with the anterior cruciate ligament. We wonder if this issue is related to anterior cruciate ligament insufficiency or posterior cruciate ligament insufficiency?

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Zhi-Hong Zheng, MD [1,2,3]

1 Department of Orthopedic Surgery, National Defense Medical Center, Tri-Service General Hospital, Taipei, Taiwan

2 Department of Orthopedic Surgery, Hualien Armed Forces General Hospital, Taiwan

3 Department of Orthopedic Surgery, Tri-Service General Hospital Keelung branch, Taiwan

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Response to the Letter 1

Dear Sir: Many thanks for your attention and your interest in our published paper; I am writing to provide further information in response to the question raised

Q1): Regarding the use of a knee brace for closing wedge high tibial osteotomy, I have to mention that for a lateral closing wedge high tibial osteotomy we use staples to fix the osteotomy. Then we apply a plaster of Paris cast post-operatively usually for a duration six weeks. However in the case of an open wedge high tibial osteotomy we use a three

Corresponding Author: Zhi-Hong Zheng, Department of Orthopedic Surgery, National Defense Medical Center, Tri-Service General Hospital, Taipei, Taiwan/ Department of Orthopedic Surgery, Hualien Armed Forces General Hospital, Taiwan/ Department of Orthopedic Surgery, Tri-Service General Hospital Keelung branch, Taiwan

Email: rara540@gmail.com

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cortical tibial allograft and fix the osteotomy with plate and screws, in this scenario we apply an immobilizer knee brace for six weeks or until the osteotomy has healed. During this time the patient is allowed to remove the brace at home for knee exercises but it should be worn while walking.

Q2): Regarding the tibial slope and ACL or PCL deficiency, it is important to note that the patients with ACL or PCL deficient knees were excluded from the study. But our objective is not to alter the normal patient's tibial slope as any modification made has an adverse effect on the knee stability. Therefor we take precautionary measures in the operative technique to avoid changing the slope. Consequently we conducted post-operative measurements of the tibial slope.

Thank you for providing me with the opportunity to address these matters. I hope this further explanation clarifies any concerns and add valuable information to the discussion.

Hadi Makhmalbaf MD [1]
1 Department of Orthopedics, Mashhad University of Medical Sciences, Mashhad, Iran

Response to the Letter 2

1- The lateral closed wedge osteotomy was stabilized with two genu varum staples. Because of the concern about rigidity of fixation, we used hinged knee brace for at least six weeks after surgery. Radiologic follow-up were performed for six weeks and after radiological and clinical union the brace was discontinued.
2- In this study all patients with knee instability were excluded .The tibial slope should not be altered during osteotomy in patients with stable ligaments. Generally posterior tibial slope may increases after open-wedge and decreases after closed-wedge HTO. So we assessed the PTS after surgery.

Safdari, Mohammadreza MD [1]
1 Orthopedic Research Center, Mashhad University of Medical Sciences, Mashhad, Iran